Manitoba

MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

Annual Report

1988 - 1989

August 1989

Government of Canada Gouvernement du Canada

Government of Manitoba Gouvernement du Manitoba

CANADA-MANITOBA
AGREEMENT RESPECTING THE CONSTRUCTION OF
FLOOD PROTECTION PROJECTS IN MANITOBA

1577 Dublin Avenue
Winnipeg, Manitoba
R3E 3J5

August 31, 1989

The Honourable Lucien Bouchard
Minister
Department of the Environment
Ottawa, Ontario
K1A OH3

The Honourable Harry Enns
Minister
Department of Natural Resources
Winnipeg, Manitoba
R3C OV8

Dear Ministers:

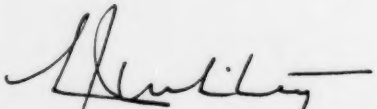
I am pleased to present the seventh Annual Report of the Implementation Committee for the administration of the Canada-Manitoba Agreement Respecting the Construction of Flood Protection Projects in Manitoba. This report covers the work undertaken during the period April 1, 1988 to March 31, 1989.

During the year due to the exceptional construction conditions, the majority of the required work at Ste. Rose du Lac was completed by the end of October, even though the contract for the dyking was scheduled to extend into the next fiscal year. The majority of the work at the Souris Water Treatment Plant was also completed as was a good portion of the International Boundary Dyke at Emerson.

Total expenditures to March 31, 1989 under the Agreement have totalled $5,917,997.98. During the reporting period shareable expenditures were $2,128,752.02. Of this amount 45 percent or $957,938.40 was Canada's share and 55 percent or $1,170,813.62 was Manitoba's share.

The agreement expired on March 31, 1989. Canada and Manitoba have approved the extension of the Agreement to March 31, 1991 in order to complete the projects.

Yours sincerely,



L. J. Whitney, P. Eng.
Chairman, Implementation Committee

CANADA-MANITOBA
AGREEMENT RESPECTING FLOOD PROTECTION PROJECTS IN MANITOBA

ANNUAL REPORT
FOR
THE PERIOD
APRIL 1, 1988 TO MARCH 31, 1989

Environment Canada
Inland Waters Directorate
Western and Northern Region
1901 Victoria Avenue
Regina, Saskatchewan
S4P 3R4

Province of Manitoba
Department of Natural Resources
Water Resources Branch
1577 Dublin Avenue
Winnipeg, Manitoba
R3E 3J5

June, 1989

90-03043/

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MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

On March 10, 1983 the Government of Canada and Manitoba signed "An Agreement Respecting the Upgrading of Ring Dykes in Certain Communities in the Red River Valley." This Agreement provided for the upgrading of the existing dyking systems of eight communities in the Red River Valley to provide flood protection to the one percent flood level. The agreement was amended on May 22, 1985 to provide for additional funding of $1.6 million to include flood protection works for Ste. Rose du Lac and the Souris Water Treatment Plant. The title of the agreement was changed to reflect the inclusion of the communities of Ste. Rose du Lac and Souris which are not located in the Red River Valley. The amended Canada-Manitoba Agreement Respecting Flood Protection Projects in Manitoba terminated on March 31, 1989. Some of the projects under the agreement were not completed by March 31, 1989 and a two year extension is required to complete the projects. An extension is necessary due to the court action associated with the expropriation of land which delayed the project at Ste. Rose du Lac, and delays in negotiating an agreement with the U.S. Corps of Engineers for construction of the international section of the dyke at Emerson-Noyes. Problems were also encountered at St. Adolphe with regard to the north closure dyke location.

1. Introduction

The sixth annual report reviews works activities and programs under the Canada-Manitoba Agreement Respecting Flood Protection Projects during the period from April 1, 1988 to March 31, 1989.

The Agreement provides up to $6.1 million to improve the existing ring dykes at Emerson, Letellier, Dominion City, St. Jean Baptiste, Morris, Rosenort, Brunkild,

St. Adolphe, Ste. Rose du Lac and at the Souris Water Treatment Plant to protect against a one percent flood. The costs of the works undertaken under this agreement are shared 45 percent by Canada and 55 percent by Manitoba. Manitoba has instituted agreements with the eight municipalities in the Red River Valley to secure local cost-sharing which includes a contribution of five percent of the capital costs to upgrade the dyking systems from the 1950 flood level to the one percent flood level, and a contribution of 25 percent of the annual maintenance costs. In lieu of 25 percent of the annual maintenance costs the communities will be responsible for grass mowing as well as a fixed annual payment to the Province for pump replacement. Manitoba has also signed an agreement with the Turtle River Conservation District for the works to be constructed at the Village of Ste. Rose du Lac for a contribution of five percent of the capital works and 25 percent of the annual maintenance costs. The agreement signed with the Town of Souris requires a contribution of five percent of the capital works with the Town of Souris responsible for the maintenance of the dyking systems.

The communities are shown on the location map in Appendix A. Location plans for the dyking systems are shown in Appendix B.

2. Organization

Under the terms of the Agreement an Implementation Committee was established consisting of one member appointed by the Minister of the Environment for Canada and one member appointed by the Minister of Natural Resources for Manitoba. On March 31, 1989 the Committee consisted of:

Canada	Manitoba
Dr. R. D. Bjonback Chief Water Planning and Management Western and Northern Region Inland Waters Directorate Environment Canada	Mr. L. Whitney Chief of Water Management Water Resources Branch Department of Natural Resources

For the period from April 1, 1988 to March 31, 1989, Mr. L. Whitney served as Chairman and Mr. F. P. Barlishen of the Manitoba Water Resources Branch served as Secretary.

The Implementation Committee met on August 12, 1988.

3. Progress

Significant progress was made on the dyke upgrading for the communities during the 1988-89 fiscal year. The construction of the dyke and outside drain around Ste. Rose du Lac was completed and the majority of the dyke upgrading around the Souris water treatment plant was completed. Right-of-way for the completion of the works at Emerson and St. Adolphe was secured and a major portion of the international segment of the dyke at Emerson-Noyes was completed.

The following is the detailed progress report on the communities for the 1988-89 fiscal year.

Emerson - In August, 1988 Diplomatic Notes were exchanged between Canada and the United States of America approving the agreement to jointly construct the dyke around Noyes, Minnesota and the international boundary dyke on the south side of Emerson. The contract was let by the U.S. Corps of Engineers in September with a good portion of the work being completed by winter.

Negotiations for the remaining right-of-way required for the north closure dyke in West Lynne were completed.

A problem was also encountered at Emerson on a 300 metre (400 ft.) section of dyke adjacent to the Hospital and Senior Citizens Home. Almost a year after raising the dyke failure cracks appeared. After assistance from Prairie Farm Rehabilitation Administration (PFRA) in assessing the failure, the dyke was removed. A decision was made to construct a sheet piling wall for this section of the dyke. The design was initiated and material purchased.

Expenditures for the year were $194,778.85.

Letellier - Complete.

No expenditures during 1988-89.

Dominion City - No work was undertaken.

No expenditures during 1988-89.

St. Jean Baptiste - Complete.

No expenditures during 1988-89.

Morris - Complete.

No expenditures during 1988-89.

Rosenort - Complete.

No expenditures during 1988-89.

Brunkild - Complete.

No expenditures during 1988-89.

St. Adolphe - The location of the north closure dyke was finalized and the Rural Municipality of Ritchot signed an agreement with Manitoba to provide for the

additional construction costs to protect additional developable land. The required right-of-way for the north closure dyke was secured during the 1988-89 fiscal year.

Expenditures for the year were $138,146.03.

Ste. Rose du Lac - In June 1988 tenders for the construction of the flood protection dykes and perimeter drain and dykes were opened. Only three bids were received in spite of the interest of some 18 contractors during the previous fall. The low bidder was Erickson Construction. The bid was $250,000 higher than the engineers' estimate. However, it was decided that readvertising would not improve the bids.

Because of the exceptional year for construction due to the dry weather the contract which was scheduled to extend into the next fiscal year was completed by the end of October.

The only works remaining at Ste. Rose are the pumping station and internal drainage system.

Expenditures for the year were $1,611,566.77.

Souris Water Treatment Plant Dyke - In August 1988 only two tenders for the upgrading of the dyke were received; one for $100,000 and a second for $140,000. It was felt that the bids were too high considering that the bid was for the construction work only and did not include materials. The Implementation Committee approved undertaking the work by day labour based on the estimate of $55,000. The majority of the works were completed during the year. The only outstanding work was clean up, seeding and the purchase of a pump.

Expenditures for the year were $109,095.67.

Total Expenditures - Expenditures for the 1988-89 fiscal year totaled $2,053,587.32. Table 1 indicates expenditures under the agreement from 1982-89.

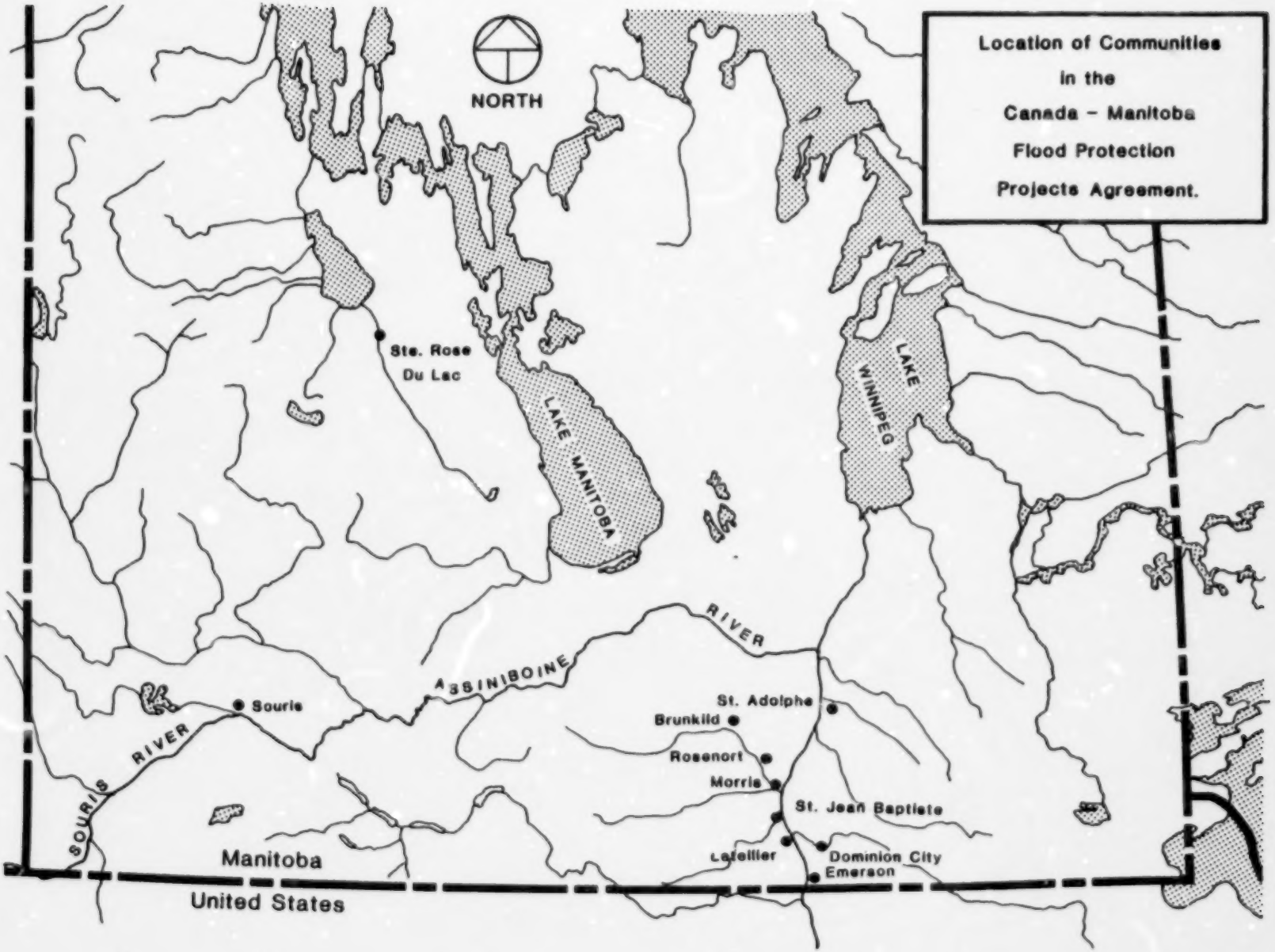
TABLE 1

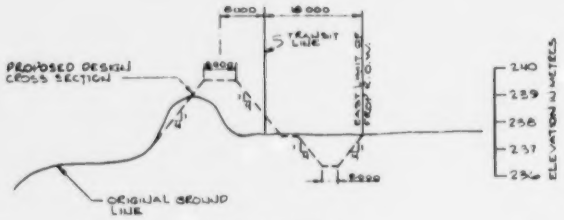
CANADA-MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT
EXPENDITURES FOR 1982-89

Community	1982/83*	1983/84	1984/85	1985/86	1986/87	1987/88	1988/89	Accumulative Total
Emerson	-	$ 3,834.76	$ 7,356.01	$ 114,675.92	$177,281.96	$129,477.36	$ 259,703.61	$ 692,329.62
Letellier**	-	7,367.42	65,599.26	335,539.53	94,670.23	6,322.20	-	509,498.64
Dominion City	-	-	-	19,029.59	33,453.92	2,773.19	-	55,256.70
St. Jean Baptiste**	$198,128.74	369.20	48,473.89	287,960.25	121,587.67	15,690.80	-	672,210.55
Morris**	131,004.39	1,045.11	150,186.27	48,808.05	95,119.13	28,186.65	-	454,349.60
Rosenort**	10,209.81	4,369.11	23,293.09	178,840.29	48,289.32	6,675.69	-	271,677.31
Brunkild**	-	177,837.07	259,984.61	59,928.85	34,978.79	5,471.38	-	538,200.70
St. Adolphe	-	136,140.54	132,563.68	27,271.96	21,328.18	7,179.84	141,597.20	466,081.40
Ste. Rose du Lac	-	-	-	2,645.00	13,118.04	497,215.16	1,618,392.40	2,131,370.60
Souris	-	-	-	-	-	17,964.15	109,023.86	126,988.01
TOTAL	$339,342.84	$330,963.21	$687,456.81	$1,074,699.44	$639,827.24	$716,956.42	$2,128,717.17	$5,917,963.13

*During 1982-83 there were no funds expended because of the late signing of the agreement. The expenditures indicated are for those retroactive costs incurred by the Province prior to the agreement signing as allowed under clause 4(5) of the Agreement.

**The works required under the agreement are complete and the costs indicated are final costs.


Location of Communities
in the
Canada – Manitoba
Flood Protection
Projects Agreement.
NORTH
Ste. Rose
Du Lac
LAKE MANITOBA
LAKE WINNIPEG
ASSINIBOINE RIVER
Souris
SOURIS RIVER
St. Adolphe
Brunkild
Rosenort
Morris
St. Jean Baptiste
Letellier
Dominion City
Emerson
Manitoba
United States



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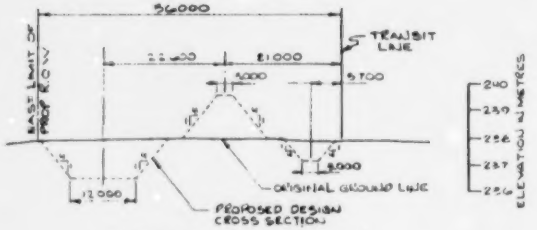

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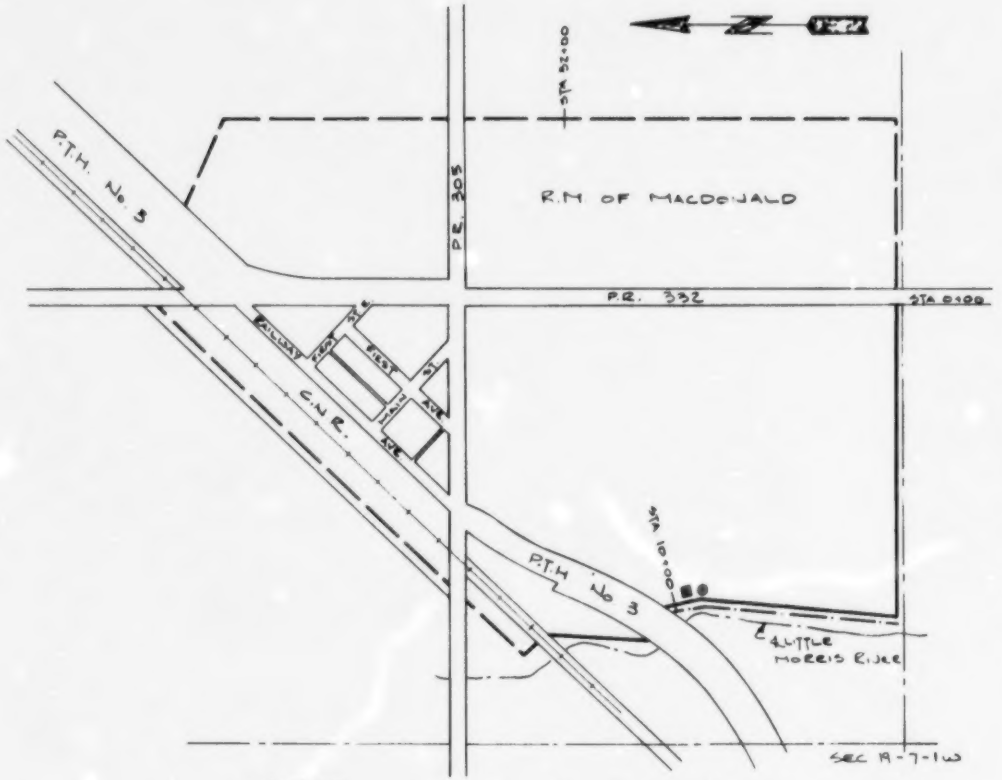


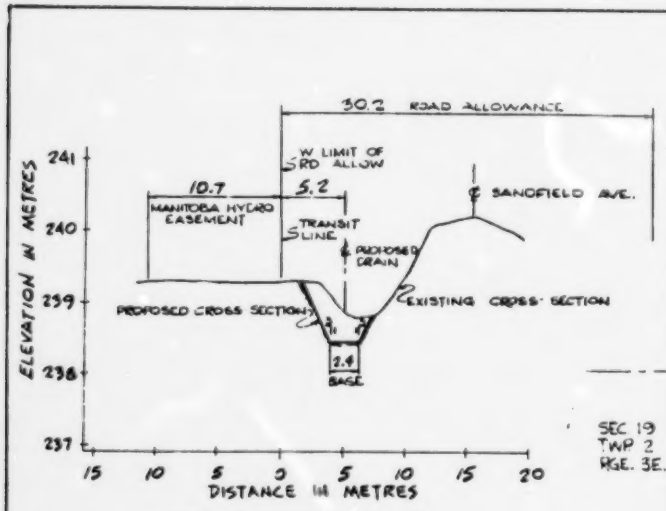
LEGEND

- LOCATION OF PROPOSED PERMANENT DYKING SYSTEM.
- PROPOSED PUMPING STATION.
- PROPOSED GRAVITY OUTLET CHAMBER.
- LOCATION OF PROPOSED GRAVEL SURFACE ROADWAY.
- LOCATION OF PROPOSED UPGRADING OF PERMANENT DYKING SYSTEM.

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

LOCATION PLAN AND TYPICAL CROSS SECTIONS FOR VILLAGE OF BRUNKILD



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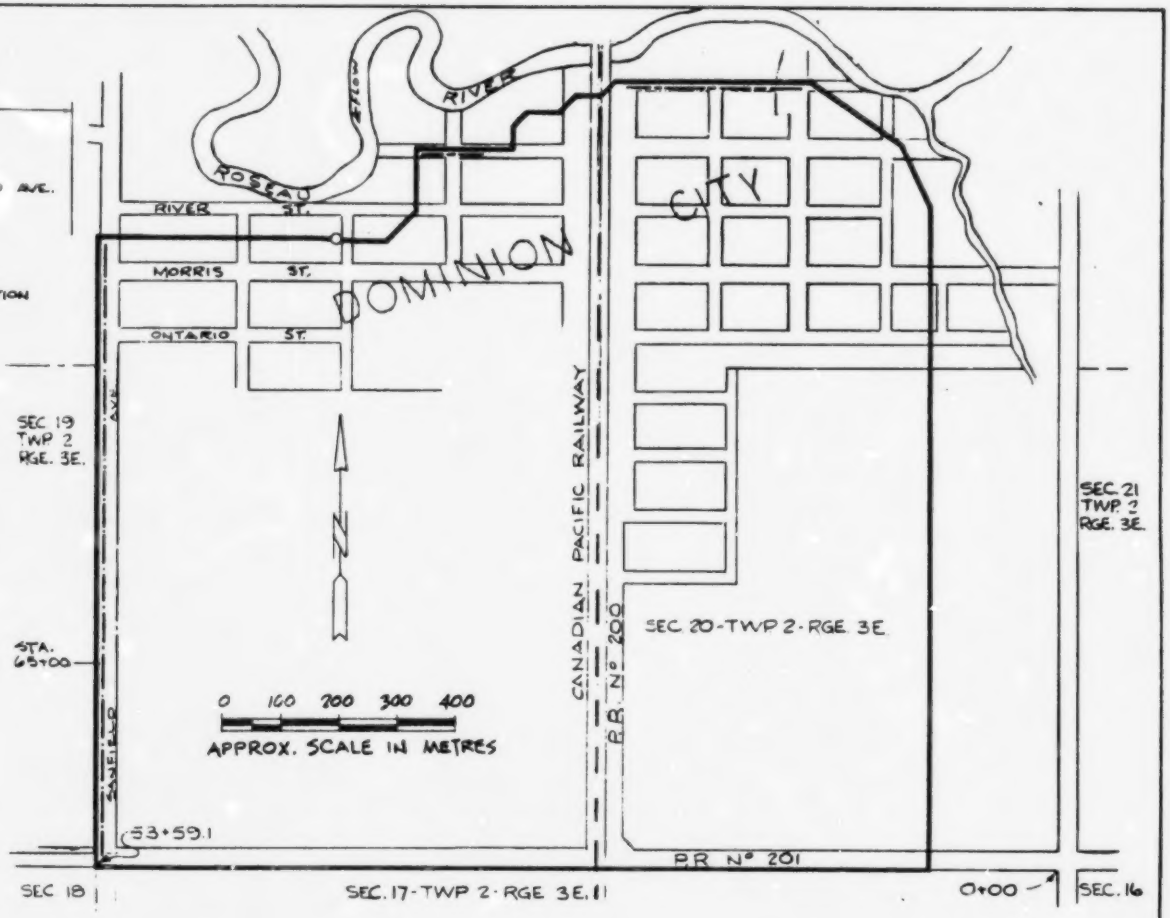


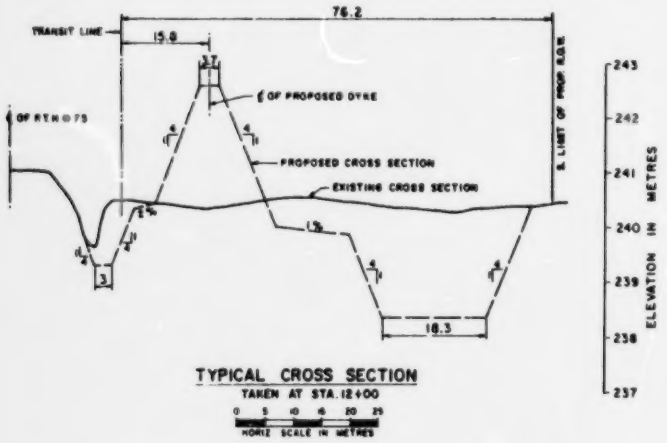
LEGEND

- LOCATION OF PROPOSED UPGRADING OF PERMANENT DYKING SYSTEM.
- EXISTING DYKE REQUIRING NO IMPROVEMENTS
- O EXISTING GRAVITY OUTLET CHAMBER.
- LOCATION OF PROPOSED GRAVEL SURFACE ROADWAY.
- LOCATION OF PROPOSED PAVED SURFACE ROADWAY.

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

LOCATION PLAN AND TYPICAL CROSS SECTIONS FOR VILLAGE OF DOMINION CITY



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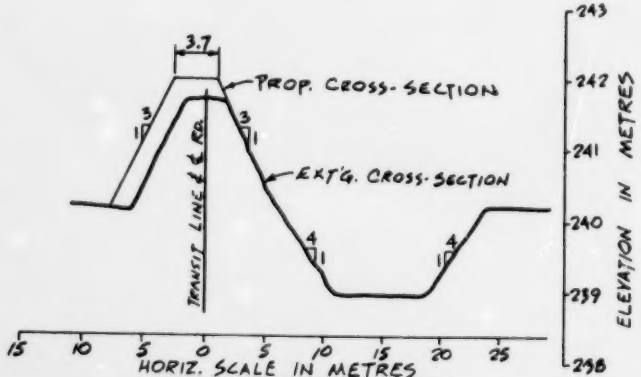

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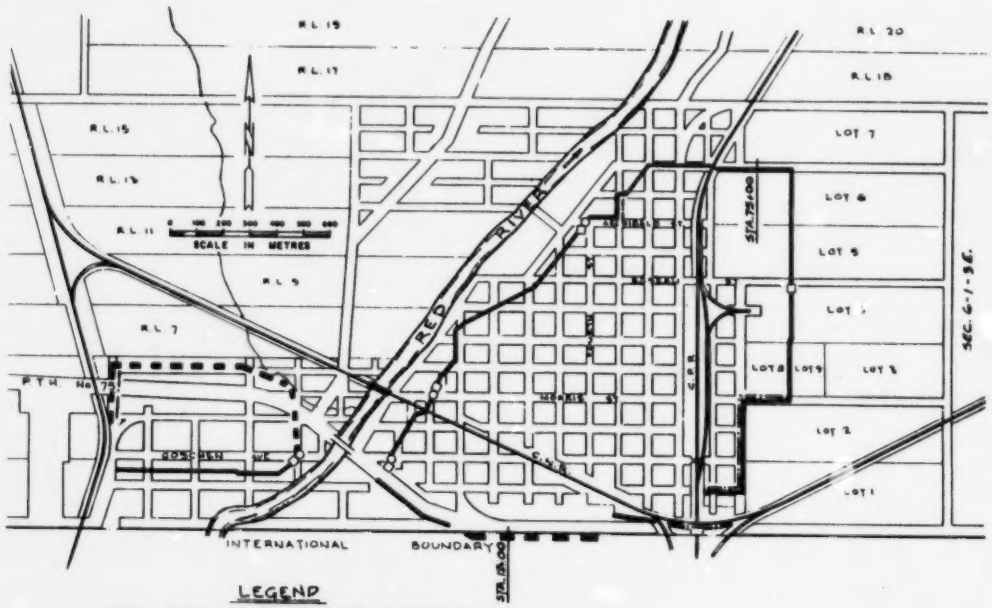

LEGEND

- LOCATION OF PROPOSED UPGRADING OF PERMANENT DYKING SYSTEM.
- LOCATION OF PROPOSED NEW DYKES
- EXISTING PUMPING STATION
- EXISTING GRAVITY OUTLET CHAMBER
- LOCATION OF PROPOSED GRAVEL SURFACE ROADWAY.

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

PREPARED | DRAWN F.R. | CHECKED | SUBMITTED | APPD

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

LOCATION PLAN AND TYPICAL CROSS SECTIONS FOR TOWN OF EMERSON

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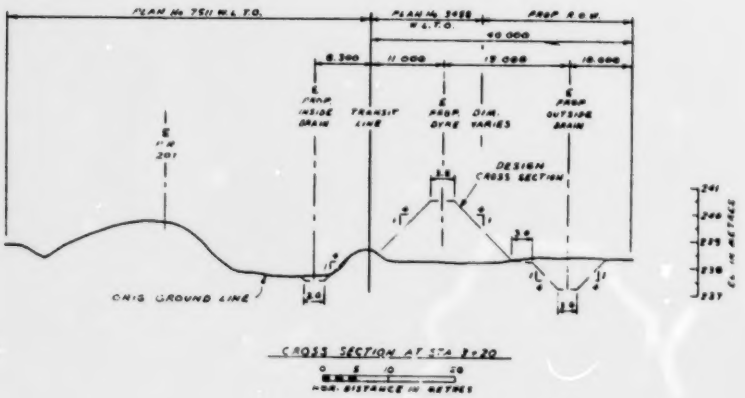
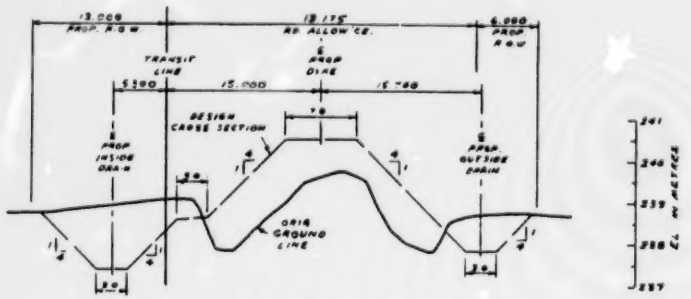


CROSS SECTION AT STA 3+20

0 5 10 20

HOR. DISTANCE IN METRES



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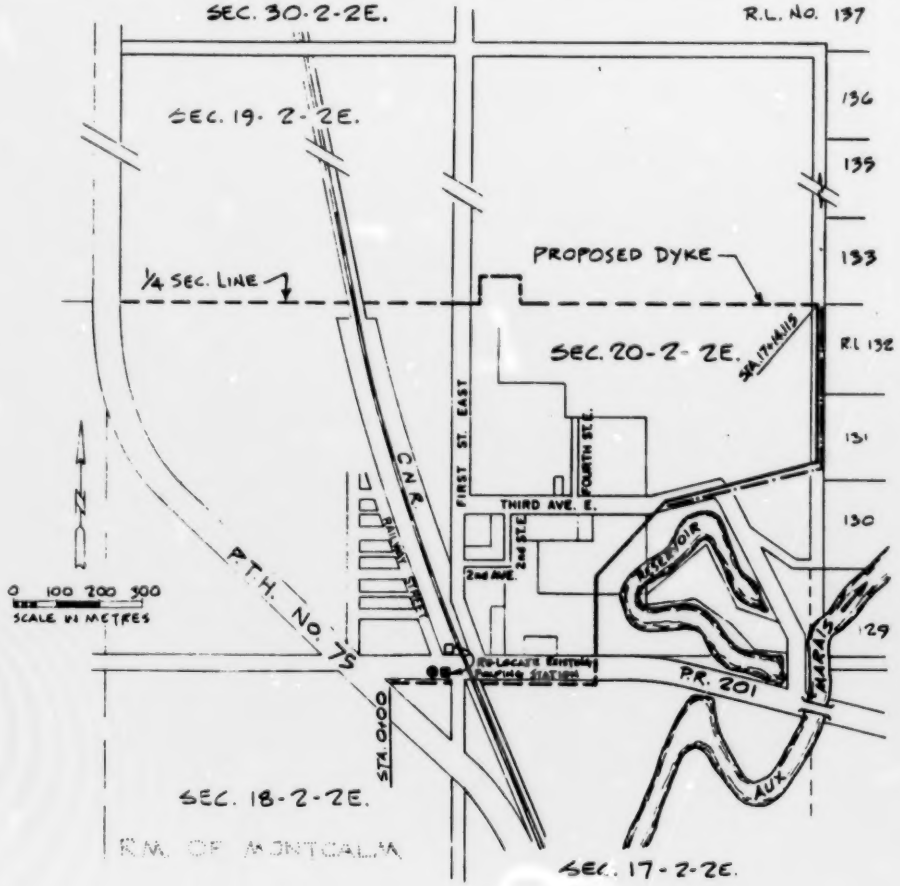

LEGEND

- LOCATION OF PROPOSED UPGRADING OF PERMANENT DYKING SYSTEM.
- LOCATION OF PROPOSED NEW DYKING.
- EXISTING PUMPING STATION.
- RE-LOCATED PUMPING STATION.
- PROPOSED GRAVITY OUTLET CHAMBER
- LOCATION OF PROPOSED GRAVEL SURFACE ROADWAY.

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

PREPARED | DRAWN FR | CHECKED | SUBMITTED | APPROVED

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

LOCATION PLAN AND TYPICAL CROSS SECTIONS FOR VILLAGE OF LETELLIER

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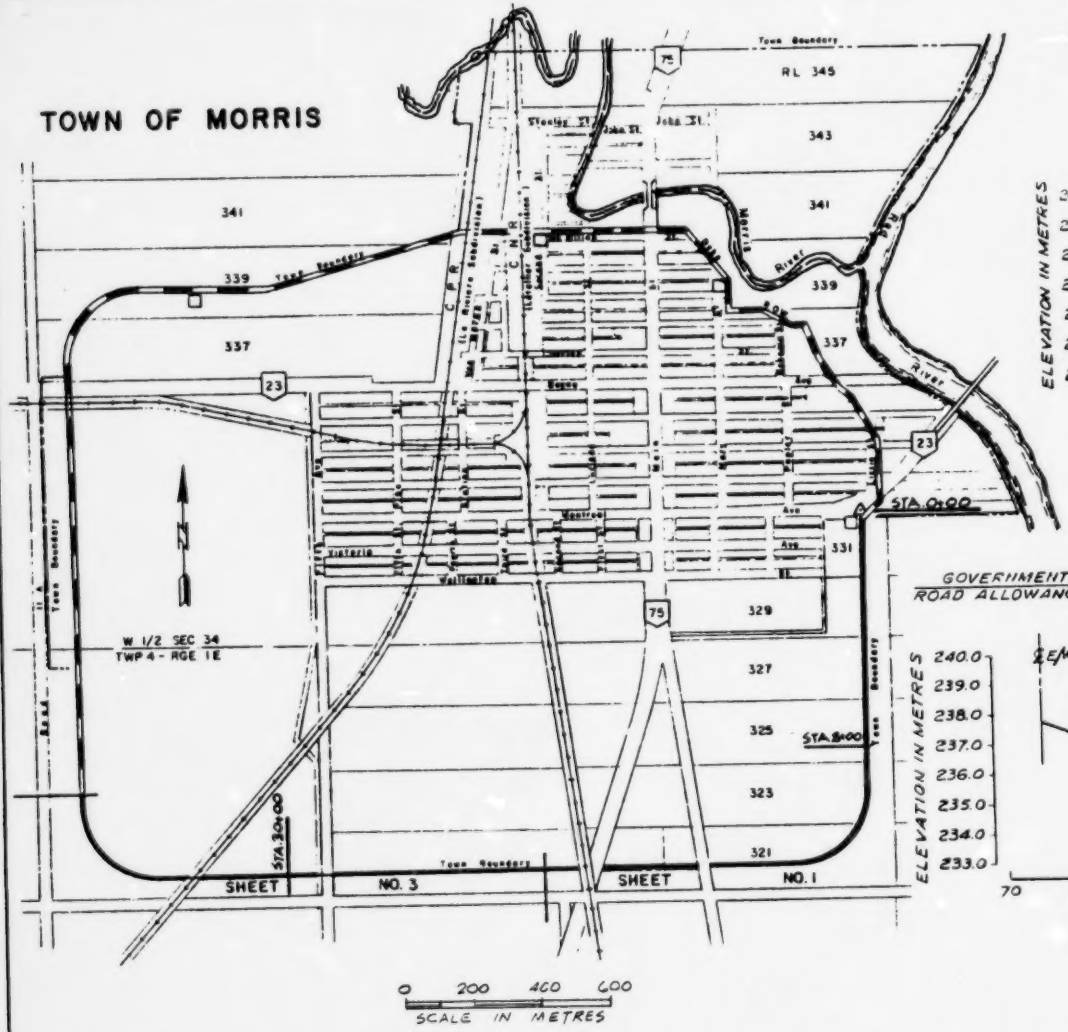
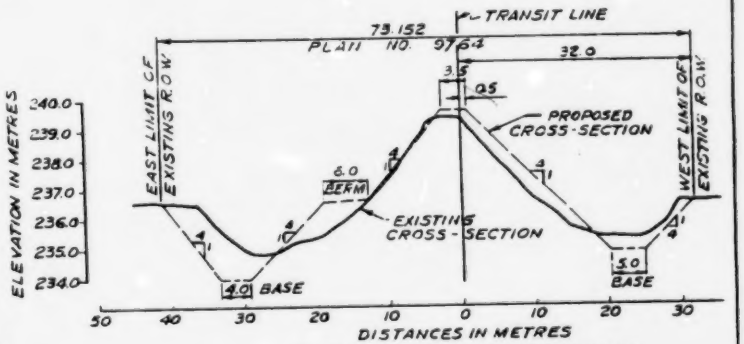
TOWN OF MORRIS





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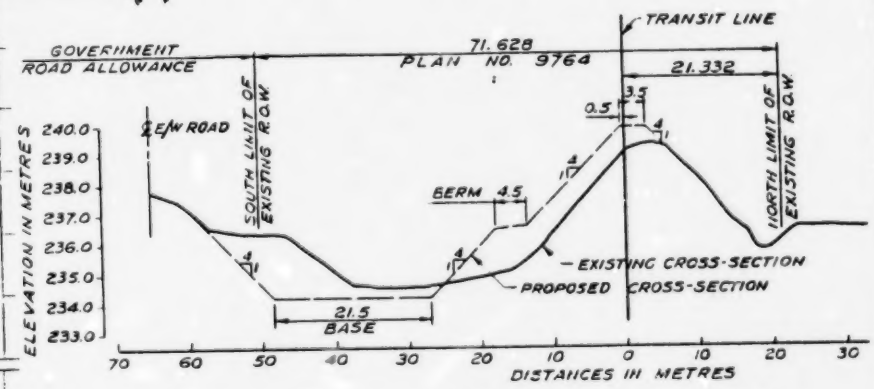

TYPICAL CROSS-SECTION

(TAKEN AT STA 30+00)

LEGEND

- LOCATION OF PROPOSED UPGRADING OF PERMANENT DYKING SYSTEM
- EXISTING DYKES NOT REQUIRING IMPROVEMENT
- □ EXISTING PUMPING STATION

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

LOCATION PLAN AND TYPICAL CROSS SECTIONS FOR TOWN OF MORRIS

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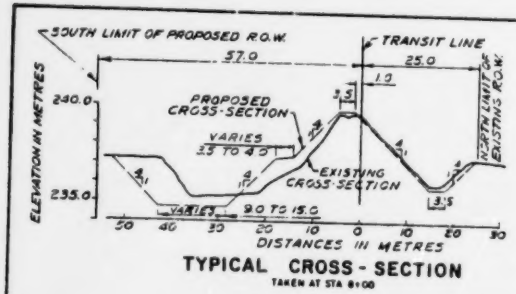

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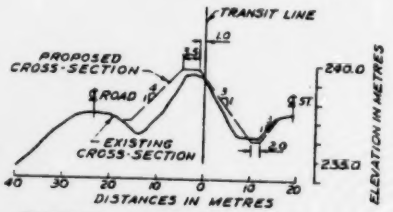

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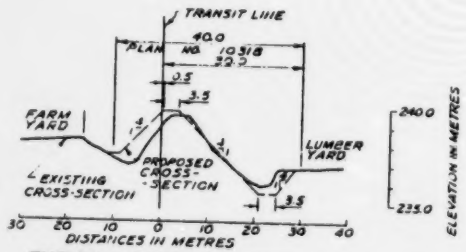

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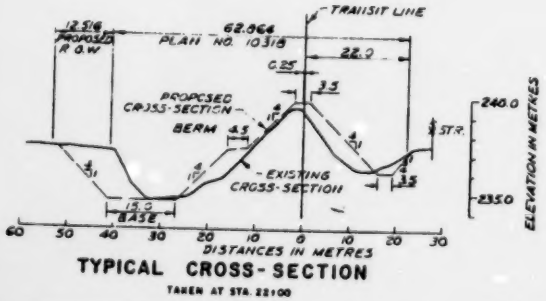

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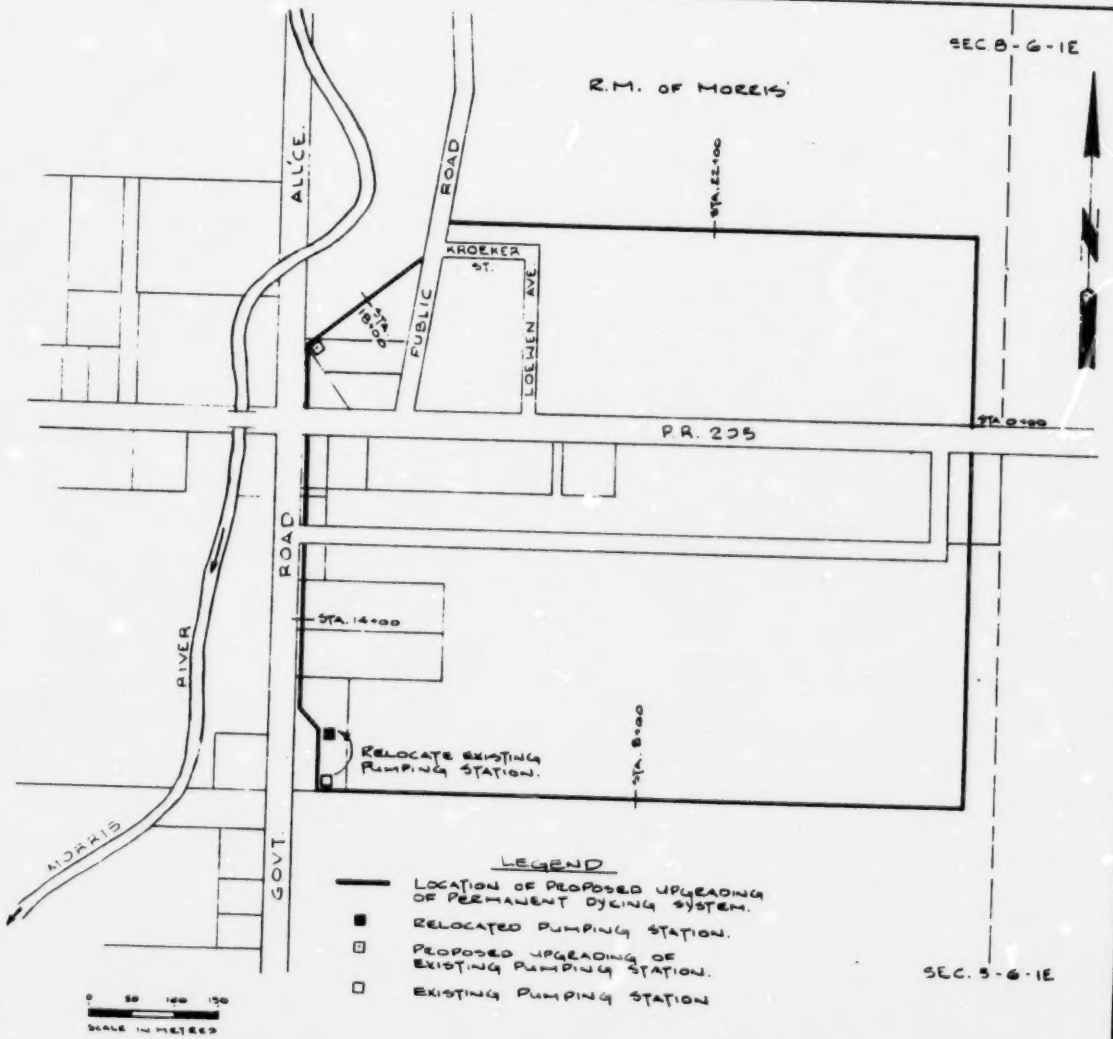
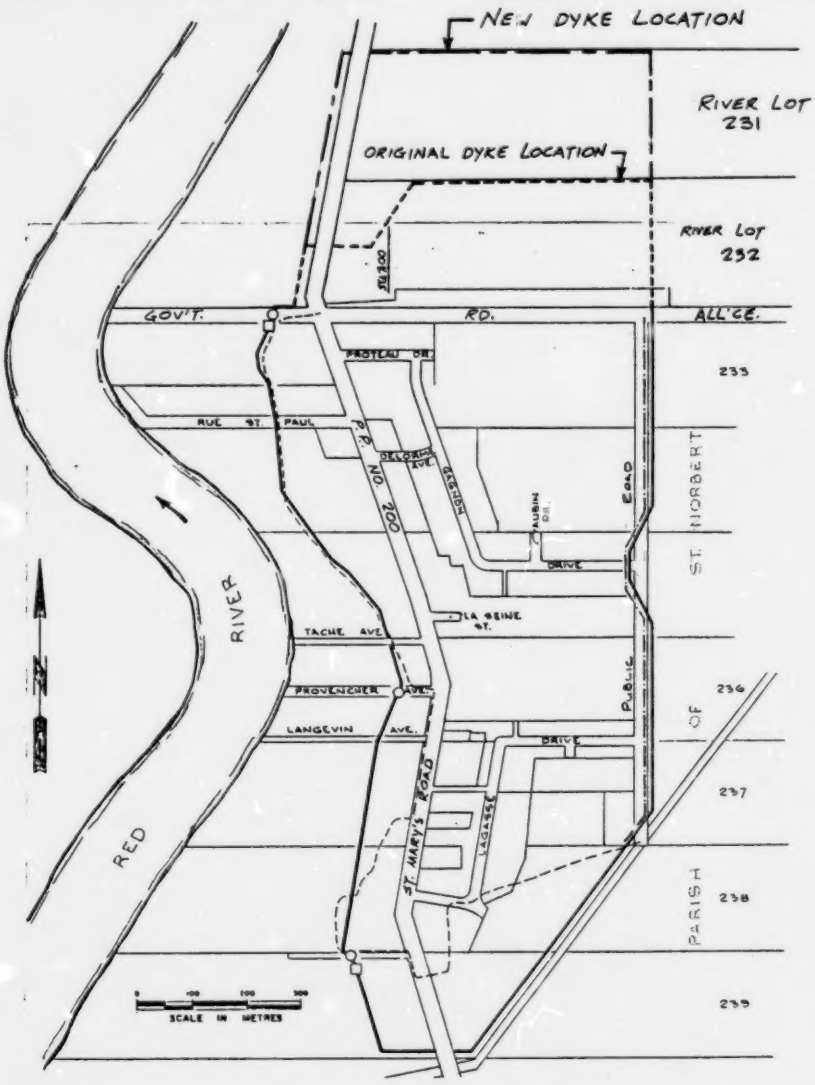
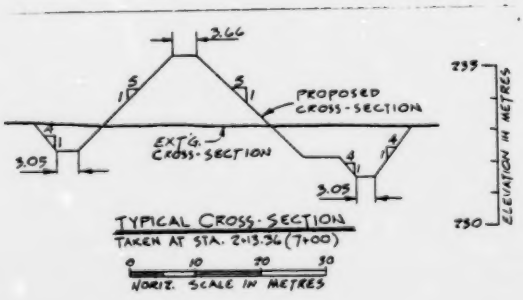


PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

LOCATION PLAN AND TYPICAL CROSS SECTIONS FOR VILLAGE OF ROSENORT





TYPICAL CROSS-SECTION
TAKEN AT STA. 2+13.56 (7+00)

LEGEND

- LOCATION OF PROPOSED UPGRADING OF PERMANENT DYKING SYSTEM.
- LOCATION OF PROPOSED NEW DYKE.
- EXISTING PUMPING STATION.
- EXISTING GRAVITY OUTLET CHAMBER.
- LOCATION OF PROPOSED GRAVEL SURFACE ROADWAY.

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

LOCATION PLAN AND TYPICAL CROSS SECTION FOR VILLAGE OF ST. ADOLPHE

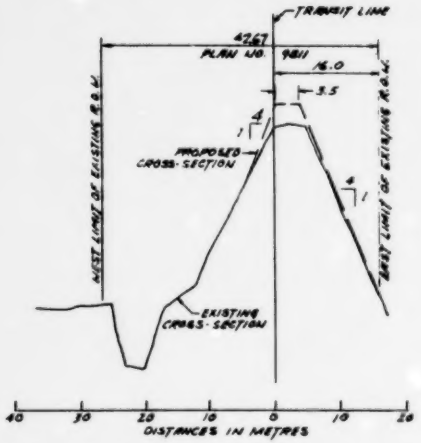
DRAWN	CHECKED	PREPARED
F.B.R.		

Manitoba Natural Resources
Water Resources

SUBMITTED

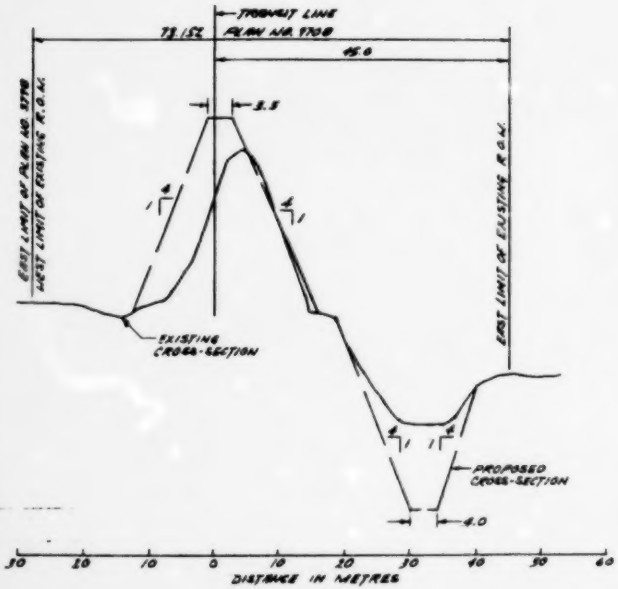
APPROVED

SCALE	DATE	SHEET	FILE NO.
AS SHOWN	86 10 02	OF	



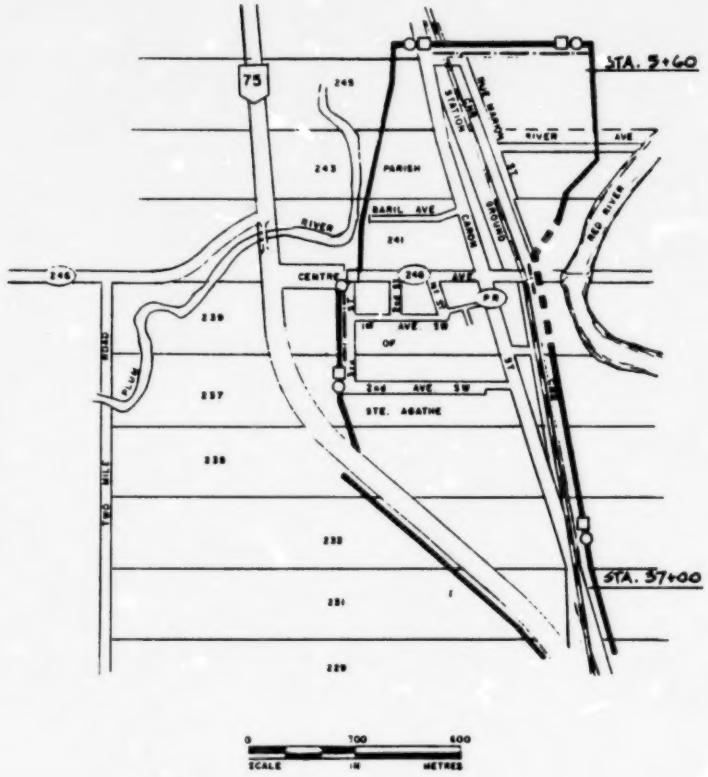
TYPICAL CROSS-SECTION

TAKEN AT STA. 5+60



TYPICAL CROSS-SECTION

TAKEN AT STA. 37+00



NORTH

LEGEND

- LOCATION OF PROPOSED UPGRADING OF PERMANENT DYKE SYSTEM.
- LOCATION OF PROPOSED NEW DYKE
- EXISTING PUMPING STATION
- EXISTING GRAVITY OUTLET CHAMBER
- LOCATION OF PROPOSED GRAVEL SURFACE ROADWAY.

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

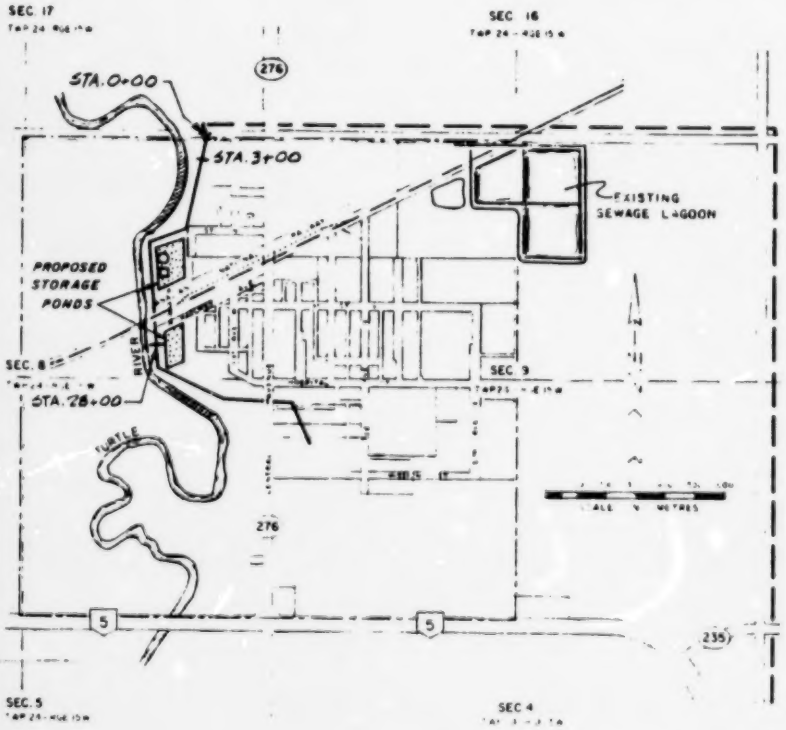
PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

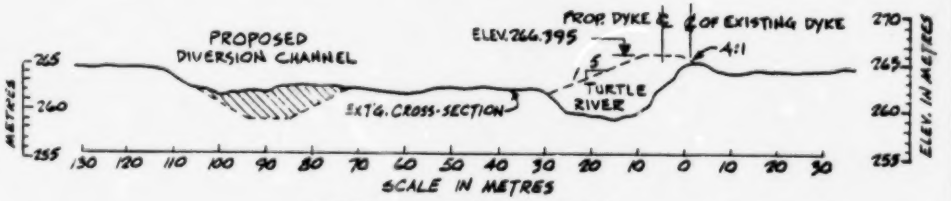
PREPARED | DRAWN FR | CHECKED | SUBMITTED | RECOMMENDED

LOCATION PLAN AND TYPICAL CROSS SECTIONS FOR VILLAGE OF ST. JEAN BAPTISTE

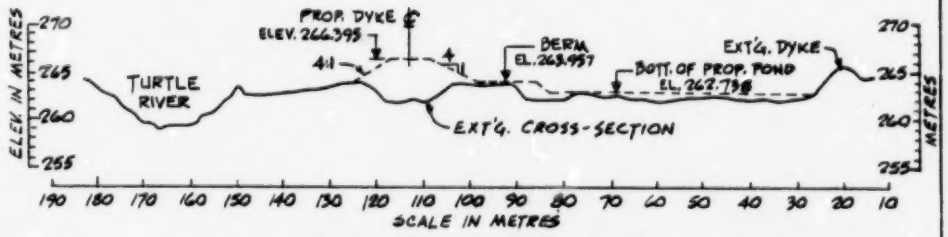
SCALE AS SHOWN | DATE | SHEET | FILE NO

VILLAGE OF
STE. ROSE DU LAC





TYPICAL CROSS-SECTION
(TAKEN AT STA. 3+00)



TYPICAL CROSS-SECTION
(TAKEN AT STA. 28+00)

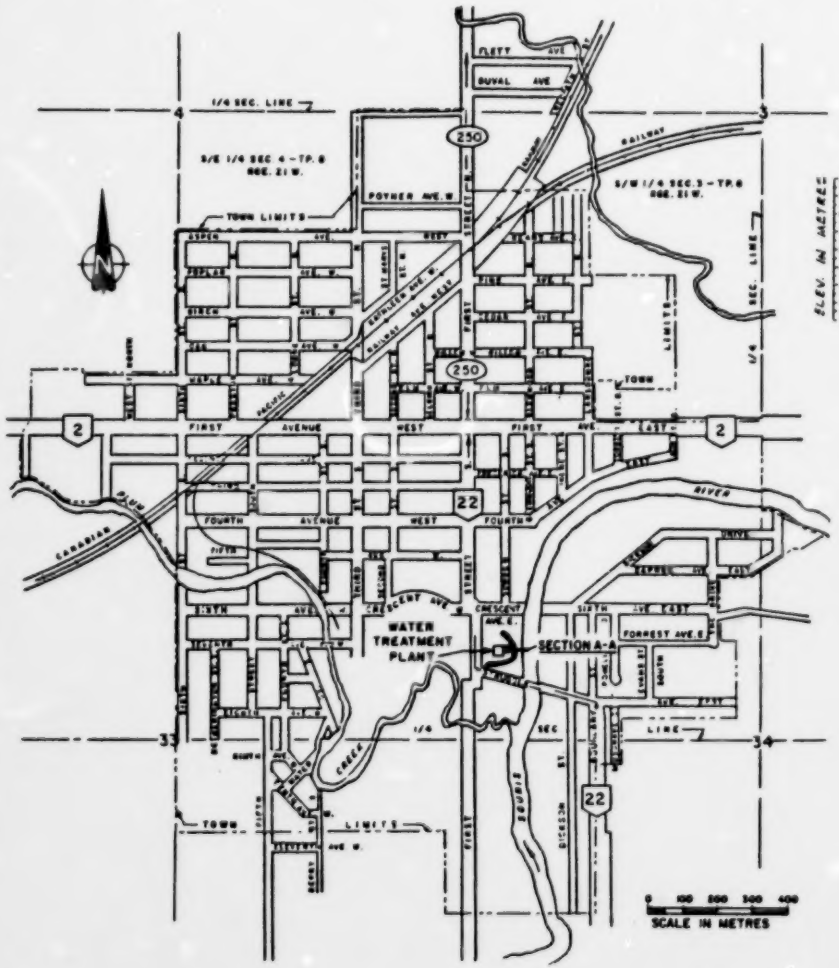
LEGEND

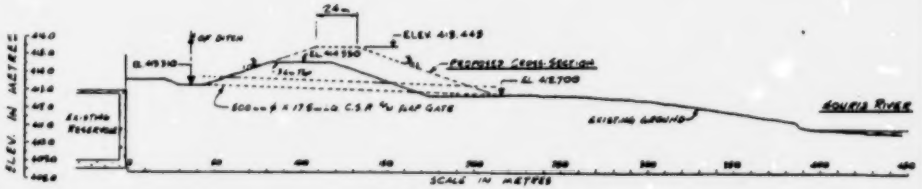
——— – LOCATION OF PROPOSED UPGRADING OF PERMANENT DYKING SYSTEM
– – – – LOCATION OF PROPOSED NEW DYKE
□ – PROPOSED PUMPING STATION
○ – PROPOSED GRAVITY OUTLET CHAMBER

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

LOCATION PLAN
AND
TYPICAL CROSS SECTIONS
FOR
VILLAGE OF STE. ROSE DU LAC





SECTION A-A - TYPICAL CROSS-SECTION

LEGEND

——— - LOCATION OF PROPOSED UPGRADING OF EXISTING DYKE

CANADA - MANITOBA FLOOD PROTECTION PROJECTS AGREEMENT

PROVINCE OF MANITOBA
DEPARTMENT OF NATURAL RESOURCES
WATER RESOURCES BRANCH

LOCATION PLAN AND TYPICAL CROSS SECTIONS FOR TOWN OF SOURIS